

## **ABSTRACT**

Disclosed are methods of selecting phage that encode a target binding protein from a plurality of display phage. The methods can include forming a mixture comprising a plurality of diverse display phage, a target, and a support, wherein each phage of the plurality displays a heterologous protein component on its surface and each phage includes a nucleic acid encoding the heterologous protein component, the heterologous protein component being a member of a set of diverse protein components.